

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D120-639 REV. A AND  
INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D120-639 REV. 0

REF TCCA STC: SH01-25  
REF FAA STC: SR01347NY  
REF EASA STC: EASA.IM.R.S.01452

## 1.0 PUPOSE

It has come to Dart's attention that the D120-639-011/-013 Weaplate Kits can't be installed as intended on recent EC 120 aircraft due to a Eurocopter design change on the spring blade located at the aft end of the skidtubes. This Dart Service Instruction (DSI) introduces the new D120-639-021 Wearplate Kit for one skidtube for customers with aircraft equipped with the new style spring blades.

## 2.0 INSTALLATION

- 2.1 Remove existing wearplates and plug all holes with the screws that have been removed.
- 2.2 Remove and retain DHS411-101-2076 Bolt and associated hardware existing securing the spring blade per aircraft maintenance manual.
- 2.3 Locate D4677-1 Wearplate using DHS411-101-2076 Bolt removed at Step 2.2 as shown in Figure 1 of this service instruction. Locate D2746 and D2656-13 Wearplates as shown in Figure 1. Adjust the amount of overlap between the wearplates to ensure that the wearplate holes do not interfere with any existing holes in the skidtube. Temporarily clamp the wearplates into the proper position.
- 2.4 Using the wearplates as a template, drill  $\varnothing 0.125$  holes in the center of the wearplate obrounds. To help maintain position of the wearplates during the drilling operation, it is recommended to cleco the wearplates to the skidtube as the pilot holes are drilled. Remove wearplates.
- 2.5 Open holes drilled in previous step to  $\varnothing 0.297$  and deburr. Remove swarf from inside of skidtube. Touch up holes with chemical film material (Alodine 1200/1201) per MIL-C-5541 and one coat of MIL-P-85582 or MIL-P-23377 primer. Install ALS7-1032-130 inserts.
- 2.6 Install the D2656-13, D2746, and D4677-1 Wearplates and D2648-3 Wearpads using the MS27039-1-08 Screws and NAS1149D0332J Washers. Seal all screws with Sikaflex-241/291 (or Proseal 890) sealant before installing. Re-install the DHS411-101-2076 Bolt and associated hardware and torque to 44.3-61.9 in-lb (5.0 7.0 N-m). Note: It is acceptable to omit the washer(s) on DHS411-101-2076 Bolt to ensure 1.5-4 threads in safety.
- 2.7 Adjust weight and balance in accordance with Section 4.0 below.

## 3.0 MAINTENANCE

Maintain the D120-639-021 Wearplate Kit in accordance with ICA-D120-639 Rev. 0 or later approved revision.

## 4.0 WEIGHT AND BALANCE

Installation	Weight	LONGITUDINAL		LATERAL	
		Arm	Moment	Arm	Moment
D120-639-021 WEARPLATE KIT	3.2 lb 1.5 kg	136.0 in 3.45 m	435 in-lb 5.2 m-kG	$\pm 40.7$ in $\pm 1.04$ m	$\pm 130$ in-lb $\pm 1.6$ m

**PRELIMINARY ISSUE**

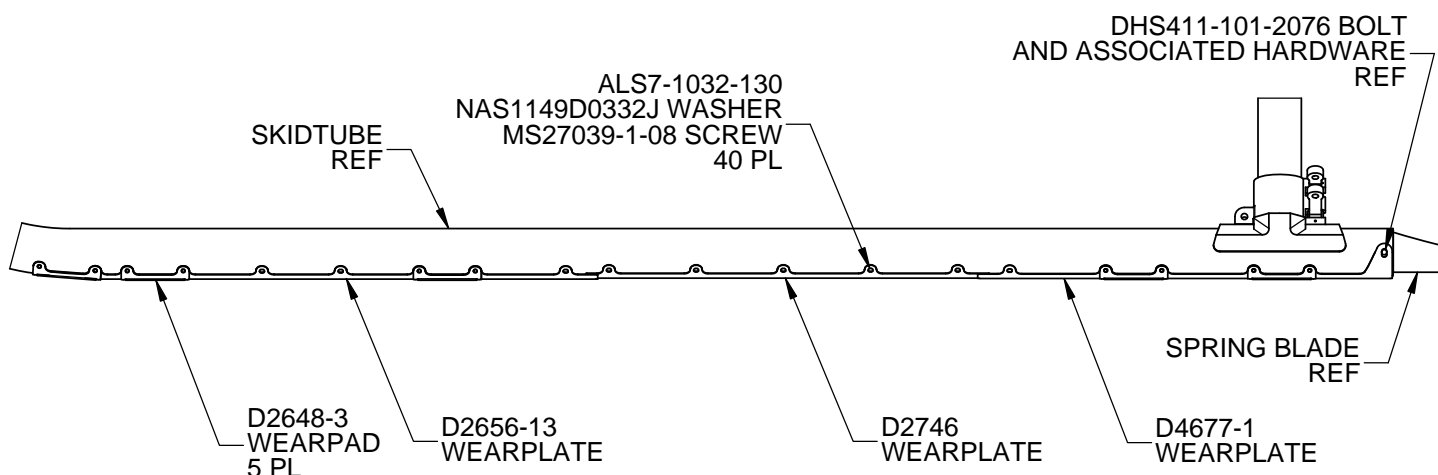
12.06.29

CANADA DEPARTMENT OF TRANSPORT AIRCRAFT CERTIFICATION BRANCH DAO # 01-O-01	
<b>APPROVED</b>	
BY:	_____
	D. SHEPHERD (DE # 02)
DATE:	12.07.05
CERT. NO.:	SH01-25
ISSUE NO.:	1

PA1	NEW ISSUE	MB	12.06.29
REV.	DESCRIPTION	BY	DATE
DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		<b>DSI 9623</b>	SHEET 1 OF 2
APPROVED		TITLE	SCALE
DE APPR.		<b>WEARPLATE KIT</b>	NTS
DATE	12.06.29	COPYRIGHT © 2012 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

## 5.0 PART LIST

Qty -021	Part Number	Description
<b>X</b>	<b>D120-639-021</b>	<b>WEARPLATE KIT</b>
5	D2648-3	WEARPAD
1	D2656-13	WEARPLATE
1	D2746	WEARPLATE
1	D4677-1	WEARPLATE
38	ALS7-1032-130 or AKS7-1032-130 or ALS4-1032-130 or AKS4-1032-130	INSERT
38	MS27039-1-08	SCREW
38	NAS1149D0332J	WASHER



**FIGURE 1: D120-639-021 WEARPLATE KIT INSTALLATION**

**PRELIMINARY ISSUE**

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

**APPROVED**

BY: \_\_\_\_\_  
D. SHEPHERD (DE # 02)

DATE: 12.07.05  
CERT. NO.: SH01-25  
ISSUE NO.: 1

12.06.29

DESIGN		<b>DART AEROSPACE LTD</b>	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		<b>DSI 9623</b>	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		<b>WEARPLATE KIT</b>	NTS
DATE	12.06.29	<b>COPYRIGHT © 2012 BY DART AEROSPACE LTD</b> <small>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	